

Amendments to the Claims

1. (CURRENTLY AMENDED) A power converter comprising:
an inductor (~~L~~) and a main switch (~~M1~~) having a main current path, the inductor (~~L~~) and the main current path being arranged in series for receiving a DC-input voltage (~~VIN~~),
a measuring circuit (~~MC~~) coupled to a junction (~~J1~~) of the inductor (~~L~~) and the main current path to obtain a measuring signal (~~MS~~) being indicative of a voltage across the main current path, and
a control circuit (~~CC~~) for controlling on-periods (~~Ton~~) and/or off-periods (~~Toff~~) of the main switch (~~M1~~) to stabilize an output voltage (~~VO~~) supplied to a load (~~LO~~), and having an input (~~IN~~) for receiving the measuring signal (~~MS~~) to protect the main switch (~~M1~~) against an overvoltage.
2. (CURRENTLY AMENDED) A power converter as claimed in claim 1, wherein the measuring circuit (~~MC~~) comprises a series arrangement of a diode (~~D~~) and a capacitor (~~C~~), the series arrangement of the diode (~~D~~) and the capacitor (~~C~~) being coupled in parallel with the inductor (~~L~~), the input of the control circuit (~~IN~~) being coupled to a junction (~~J2~~) of the series arrangement of the diode (~~D~~) and the capacitor (~~C~~).
3. (CURRENTLY AMENDED) A power converter as claimed in claim 2, wherein the diode (~~D~~) is coupled to the junction of the main switch (~~M1~~) and the inductor (~~L~~), the diode (~~D~~) being poled to be able to conduct during the off-period (~~Toff~~) of the main switch (~~M1~~).
4. (CURRENTLY AMENDED) A power converter as claimed in claim 3, wherein the measuring circuit (~~MC~~) comprises a resistor (~~R~~) coupled across the capacitor (~~C~~).
5. (CURRENTLY AMENDED) A power converter as claimed in claim 2, wherein the measuring circuit (~~MC~~) comprises a resistor divider (~~R1, R2~~) comprising a first resistor (~~R1~~) and a second resistor (~~R2~~), the first resistor (~~R1~~) being coupled

between the junction (~~J2~~) of the capacitor (~~C~~) and the diode (~~D~~) and the input (~~IN~~) of the control circuit (~~CC~~), the second resistor (~~R2~~) being coupled between the input (~~IN~~) of the control circuit (~~CC~~) and a fixed potential.

6. (CURRENTLY AMENDED) A power converter as claimed in claim 5, wherein the control circuit (~~CC~~) comprises:

a series arrangement of a further switch (~~S1~~) and a current-to-voltage converter (~~IVC~~), the series arrangement being coupled between the input (~~IN~~) and a reference potential,

a first comparator (~~AM1~~) for comparing a voltage at the input (~~IN~~) with a first reference voltage (~~VR1~~) when the further switch (~~S1~~) is open, and

a second comparator (~~AM2~~) for comparing a voltage at an output of the current to voltage converter (~~IVC~~) with a second reference potential (~~VR2~~) when the further switch (~~S1~~) is closed.

7. (CURRENTLY AMENDED) A power converter as claimed in claim 1, wherein the control circuit (~~CC~~) comprises an comparator (~~AM~~) for comparing the measuring signal (~~MS~~) with a reference signal (~~VR~~) to halt the operation of the power converter when the measuring signal (~~MS~~) crosses the reference signal (~~VR~~) indicating that a voltage across the main switch (~~M1~~) is higher than a particular value.

8. (CURRENTLY AMENDED) A power converter as claimed in claim 1, wherein the diode (~~D~~) and the capacitor (~~C~~) are dimensioned to operate as a peak-limiter.

9. (CURRENTLY AMENDED) An apparatus comprising the power converter (~~3~~) as claimed in claim 1.

10. (CURRENTLY AMENDED) An apparatus as claimed in claim 9, wherein the apparatus comprises

a processing circuit (~~1~~) for processing an input signal (~~IS~~) into an output signal (~~OS~~) to be made audible via a sound transducer and/or to be displayed on a display device (~~2~~) and

the power converter (3) as claimed in claim 1, wherein the load (L_O)
comprises the processing circuit (1).

11. (CURRENTLY AMENDED) A control circuit for use in the power
converter (3) of any one of the preceding claims claim 1.